

CLAIMS

What is claimed is:

1. A semiconductor device component, comprising:
a substrate having an active surface with contact pads exposed thereto, said contact pads being configured to be connected with conductors on a first surface of another semiconductor device; and
at least one stabilizer protruding from said active surface and positioned between a periphery of said active surface and said contact pads.
2. The semiconductor device component of claim 1, wherein said at least one stabilizer protrudes from said active surface a distance no more than a distance that at least one conductive structure to be disposed in contact with at least one of said contact pads will extend beyond said active surface.
3. The semiconductor device component of claim 2, wherein said at least one stabilizer protrudes from said active surface a distance that permits conductive structures on said contact pads to contact said conductors of said another semiconductor device.
4. The semiconductor device component of claim 1, wherein said at least one stabilizer comprises a dielectric material.
5. The semiconductor device component of claim 1, wherein said at least one stabilizer comprises a photocurable material.
6. The semiconductor device component of claim 5, wherein said at least one stabilizer has a plurality of superimposed, contiguous, mutually adhered layers.
7. The semiconductor device component of claim 1, wherein said at least one stabilizer is positioned proximate a corner of said active surface.

8. The semiconductor device component of claim 1, wherein said at least one stabilizer has a cross-sectional plan of one of quadrilateral, round, oval, and triangular.

9. The semiconductor device component of claim 1, wherein said at least one stabilizer is elongated in a direction parallel to said active surface.

10. The semiconductor device component of claim 1, further comprising protruding conductive structures in contact with selected ones of said contact pads.

11. The semiconductor device component of claim 10, wherein said conductive structures comprise at least one of solder bumps, conductive columns, conductor-filled columns, and z-axis conductive adhesive.

12. The semiconductor device component of claim 1, wherein said substrate comprises a semiconductor wafer with a plurality of dice thereon.

13. A semiconductor device component, comprising:
a substrate having an active surface with contact pads exposed thereto, said contact pads being configured to be connected with conductors on a first surface of another semiconductor device; and
at least one stabilizer protruding from said active surface and positioned between a periphery of said active surface and said contact pads, said at least one stabilizer having a plurality of superimposed, contiguous, mutually adhered layers.

14. The semiconductor device component of claim 13, wherein said at least one stabilizer protrudes from said active surface a distance no more than a distance that at least one conductive structure to be disposed in contact with at least one of said contact pads will extend beyond said active surface.

15. The semiconductor device component of claim 14, wherein said at least one stabilizer protrudes from said active surface a distance that permits conductive structures on said contact pads to contact said conductors of said another semiconductor device.

16. The semiconductor device component of claim 13, wherein said at least one stabilizer comprises a dielectric material.

17. The semiconductor device component of claim 13, wherein said at least one stabilizer comprises a photocurable material.

18. The semiconductor device component of claim 13, wherein said at least one stabilizer is positioned proximate a corner of said active surface.

19. The semiconductor device component of claim 13, wherein said at least one stabilizer has a cross-sectional plan of one of quadrilateral, round, oval, and triangular.

20. The semiconductor device component of claim 13, wherein said at least one stabilizer is elongated in a direction parallel to said active surface.

21. The semiconductor device component of claim 13, further comprising protruding conductive structures in contact with selected ones of said contact pads.

22. The semiconductor device component of claim 21, wherein said conductive structures comprise at least one of solder bumps, conductive columns, conductor-filled columns, and z-axis conductive adhesive.

23. The semiconductor device component of claim 13, wherein said substrate comprises a semiconductor wafer with a plurality of dice thereon.

24. The semiconductor device component of claim 13, wherein said at least one stabilizer maintains a substantially uniform distance between said active surface and said first surface of another semiconductor device.

A| 25. (Amended) A semiconductor device component, comprising:
a substrate having an active surface with contact pads exposed thereto, said contact pads being configured to be connected with conductors on a first surface of another semiconductor device; and
at least one stabilizer protruding from said active surface and positioned between a periphery of said active surface and said contact pads, said at least one stabilizer configured to allow an insulative underfill material to flow into a space created when said substrate is connected with said another semiconductor device.

26. (Amended) The semiconductor device component of claim 25, wherein said at least one stabilizer is configured so that voids do not occur in said insulative underfill material when said insulative underfill material is flowed into said space created when said substrate is connected with said another semiconductor device.

27. The semiconductor device component of claim 25, wherein said at least one stabilizer protrudes from said active surface a distance no more than a distance that at least one conductive structure to be disposed in contact with at least one of said contact pads will extend beyond said active surface.

28. The semiconductor device component of claim 27, wherein said at least one stabilizer protrudes from said active surface a distance that permits conductive structures on said contact pads to contact said conductors of said another semiconductor device.

29. The semiconductor device component of claim 25, wherein said at least one stabilizer comprises a dielectric material.

30. The semiconductor device component of claim 25, wherein said at least one stabilizer comprises a photocurable material.

31. A semiconductor device component, comprising:
a substrate having an active surface with contact pads exposed thereto, said contact pads being configured to be connected with conductors on a first surface of another semiconductor device; and
at least one stabilizer protruding from said active surface and positioned between a periphery of said active surface and said contact pads, said at least one stabilizer fabricated directly on said active surface of said substrate.

32. A semiconductor device component, comprising:
a substrate having an active surface with contact pads exposed thereto, said contact pads being configured to be connected with conductors on a first surface of another semiconductor device; and
at least one stabilizer protruding from said active surface and positioned between a periphery of said active surface and said contact pads, said at least one stabilizer preformed separately from said substrate and subsequently attached to said active surface of said substrate.